

**LASER MANIPULATION SYSTEM FOR CONTROLLABLY MOVING A LASER
HEAD FOR IRRADIATION AND REMOVAL OF MATERIAL FROM A SURFACE
OF A STRUCTURE**

Abstract of the Invention

A laser manipulation system controllably moves a laser head relative to a surface of an inhabitable structure for irradiating the surface with laser light from the laser head. The laser manipulation system includes a positioning mechanism coupled to the laser head. The positioning mechanism includes a first-axis position system adapted to move the laser head along a first direction substantially parallel to the surface. The positioning mechanism further includes a second-axis position system coupled to the first-axis position system and adapted to move the laser head along a second direction substantially parallel to the surface. The laser manipulation system further includes an anchoring mechanism coupled to the positioning mechanism and releasably coupled to the structure.

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